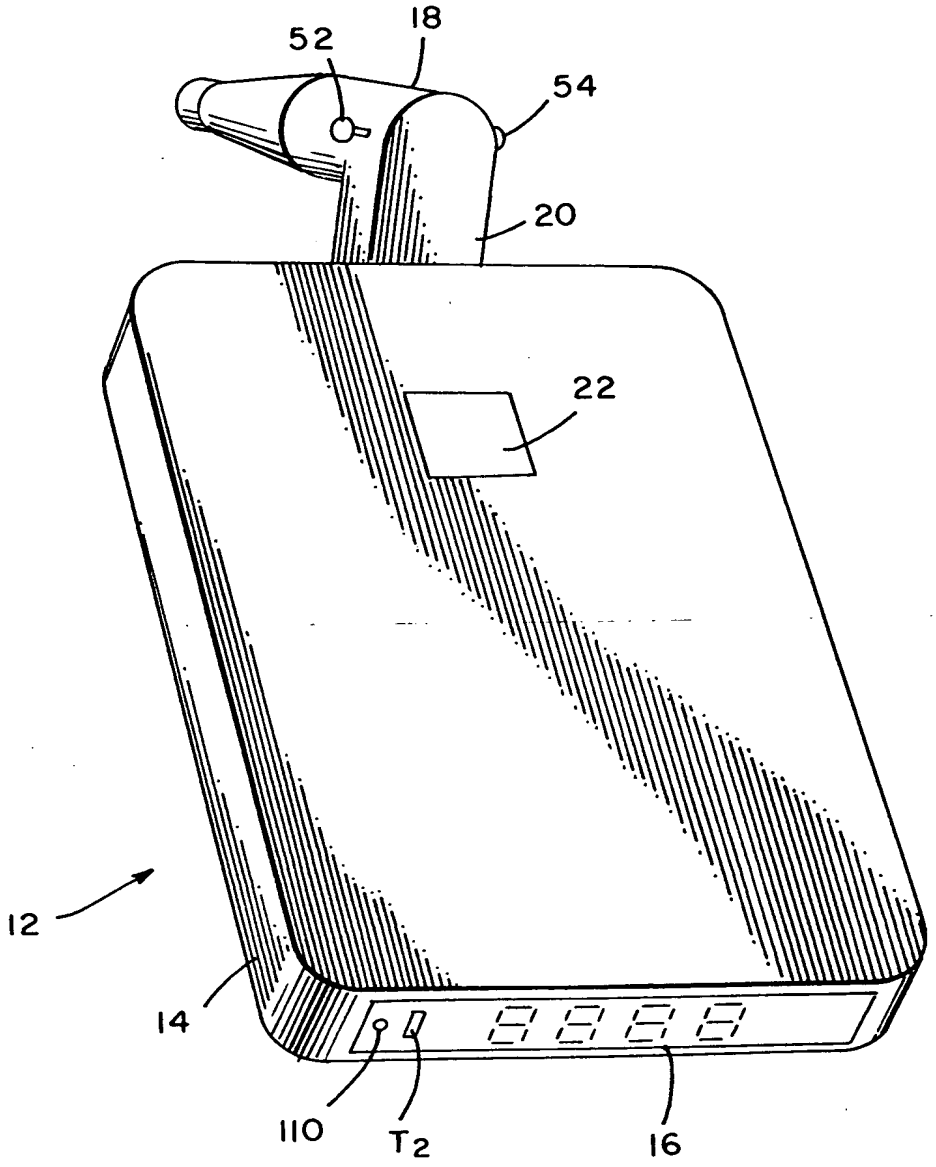


FIG. 1

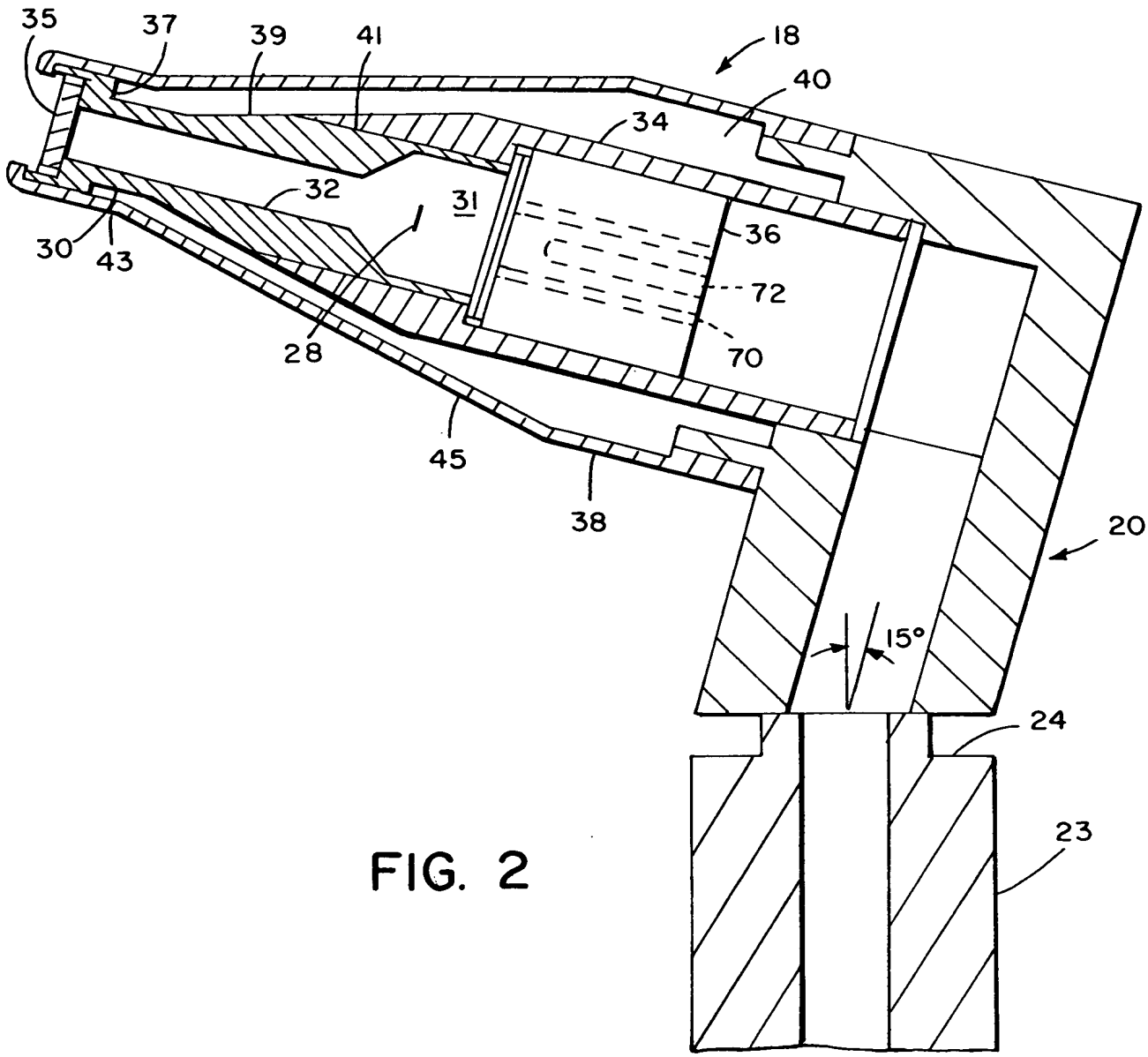


FIG. 2

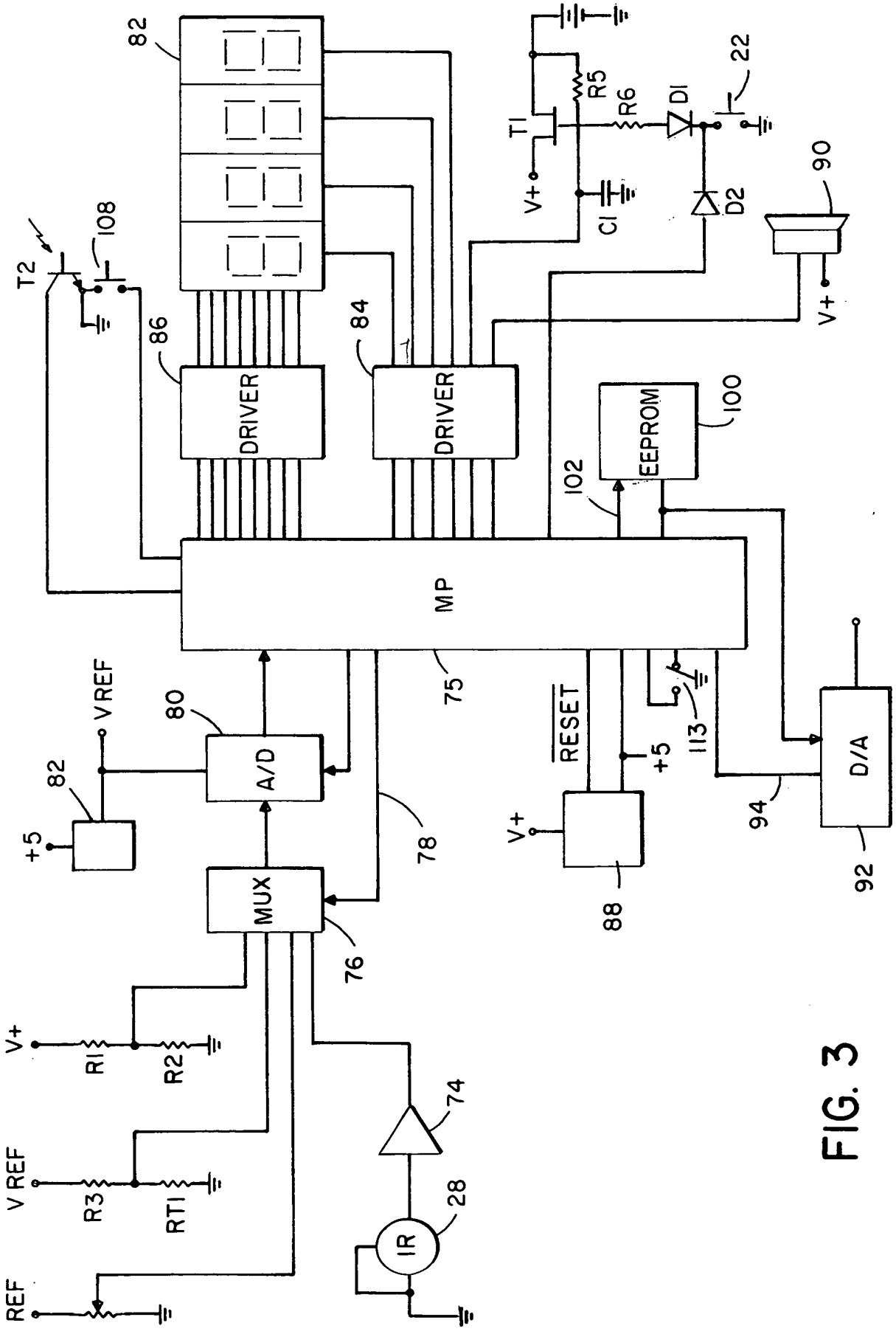

82
T1
R5
R6
D1
22
V+
C1
D2
90
T2
108
86
84
DRIVER
DRIVER
EEPROM
100
102
MP
75
VREF
80
A/D
82
+5
78
MUX
76
RESET
+5
113
D/A
94
92
V+
88
V+
R1
R2
V REF
R3
RT1
REF
74
28
IR

FIG. 3

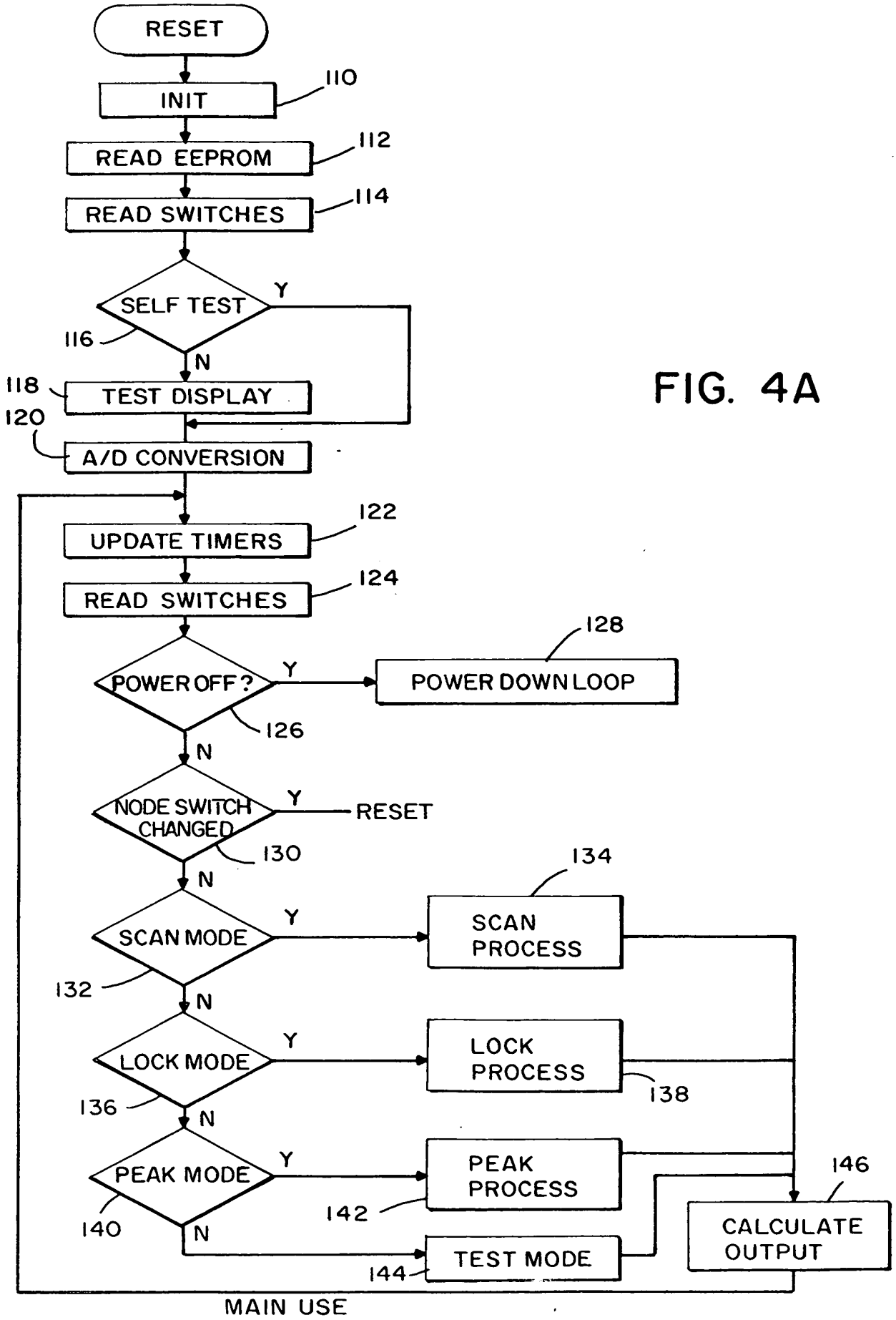

RESET
INIT
110
READ EEPROM
112
READ SWITCHES
114
SELF TEST
Y
116
N
118
TEST DISPLAY
120
A/D CONVERSION
UPDATE TIMERS
122
READ SWITCHES
124
POWER OFF?
Y
128
POWER DOWN LOOP
126
N
NODE SWITCH CHANGED
Y
RESET
130
N
SCAN MODE
Y
134
SCAN PROCESS
132
N
LOCK MODE
Y
LOCK PROCESS
138
136
N
PEAK MODE
Y
PEAK PROCESS
142
146
CALCULATE OUTPUT
140
N
TEST MODE
144
MAIN USE

FIG. 4A

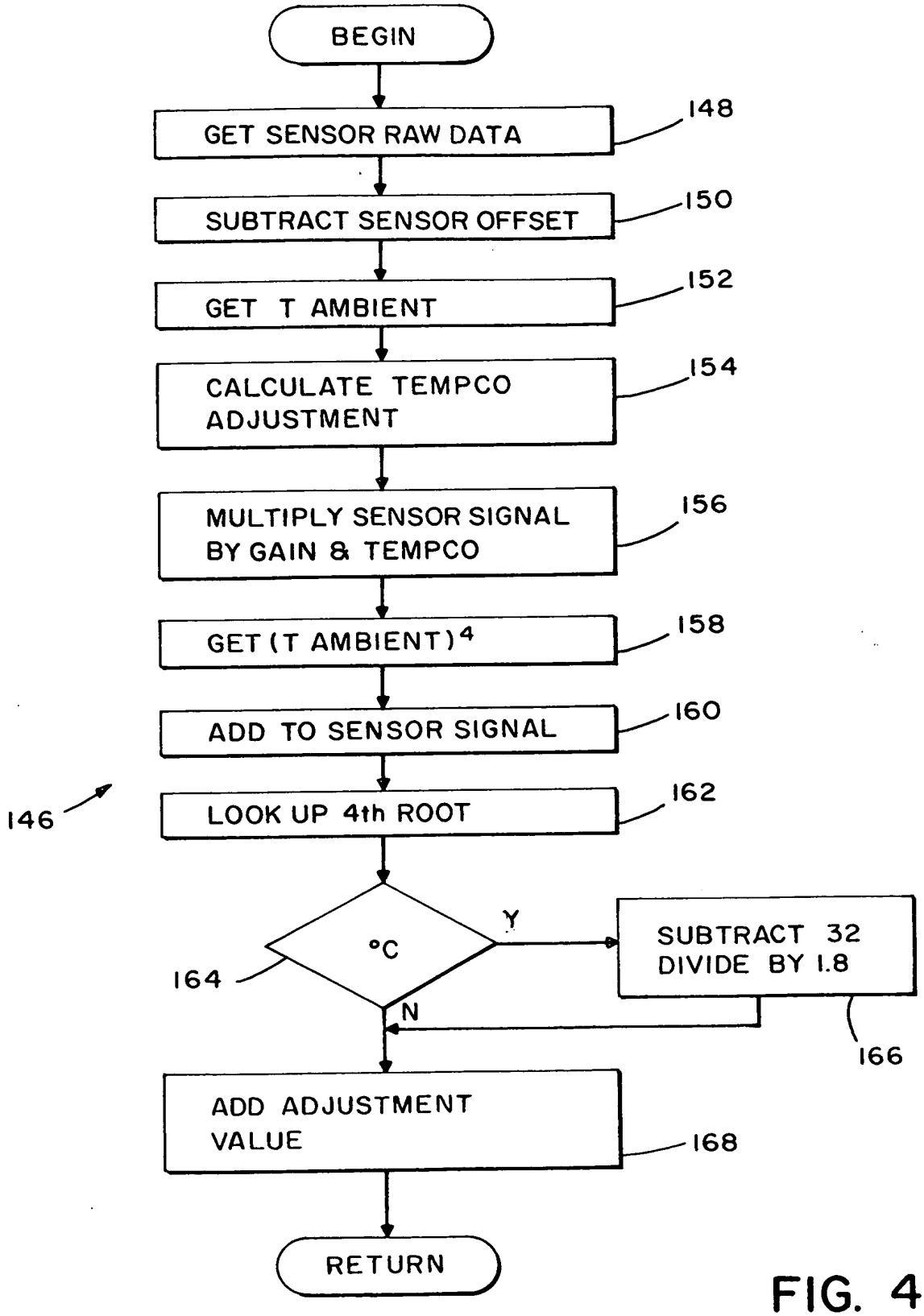
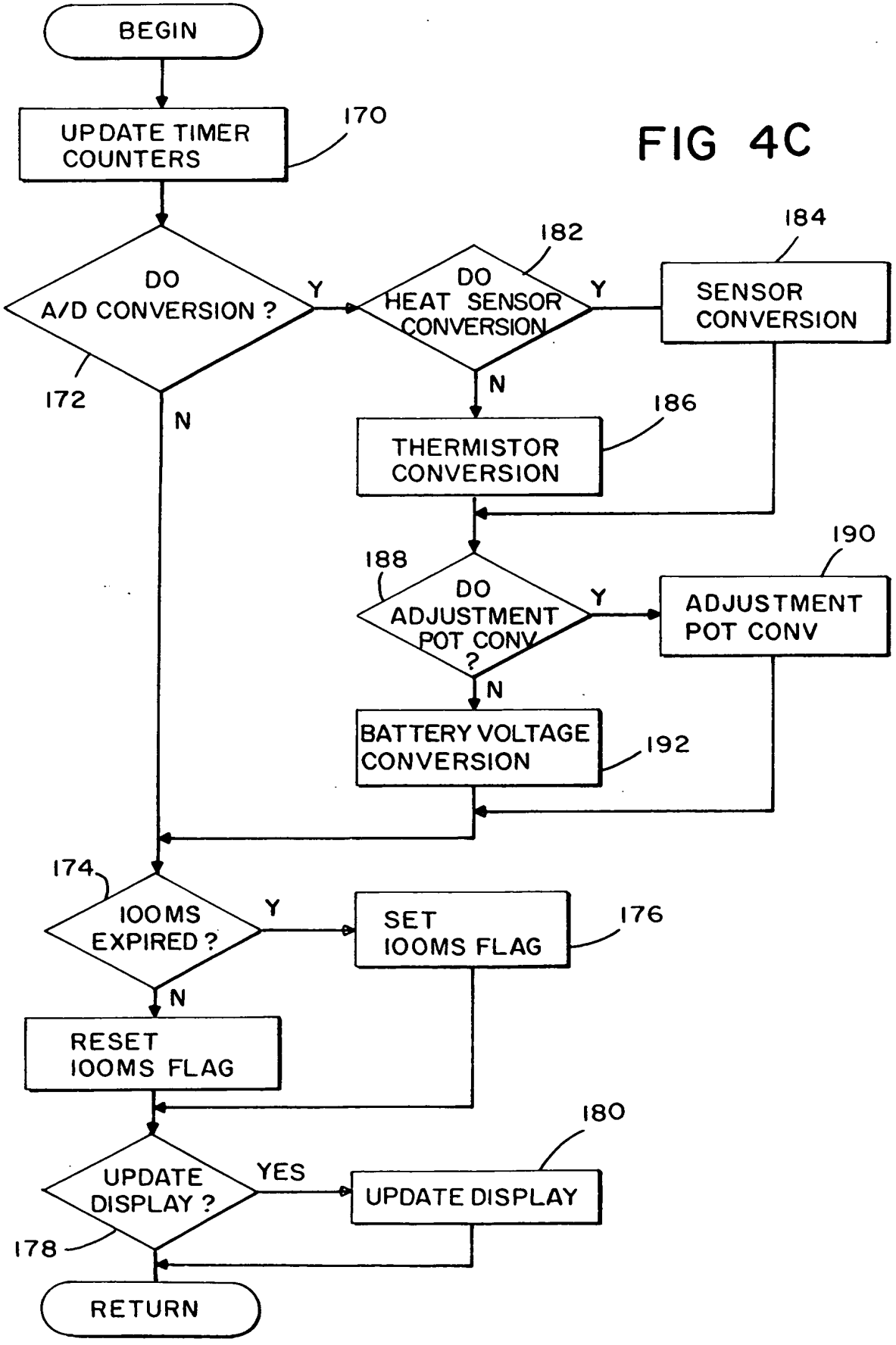


FIG. 4B

CALCULATE OUTPUT PROCEDURE

FIG 4C



A/D CONVERSION INTERRUPT SERVICE ROUTINE

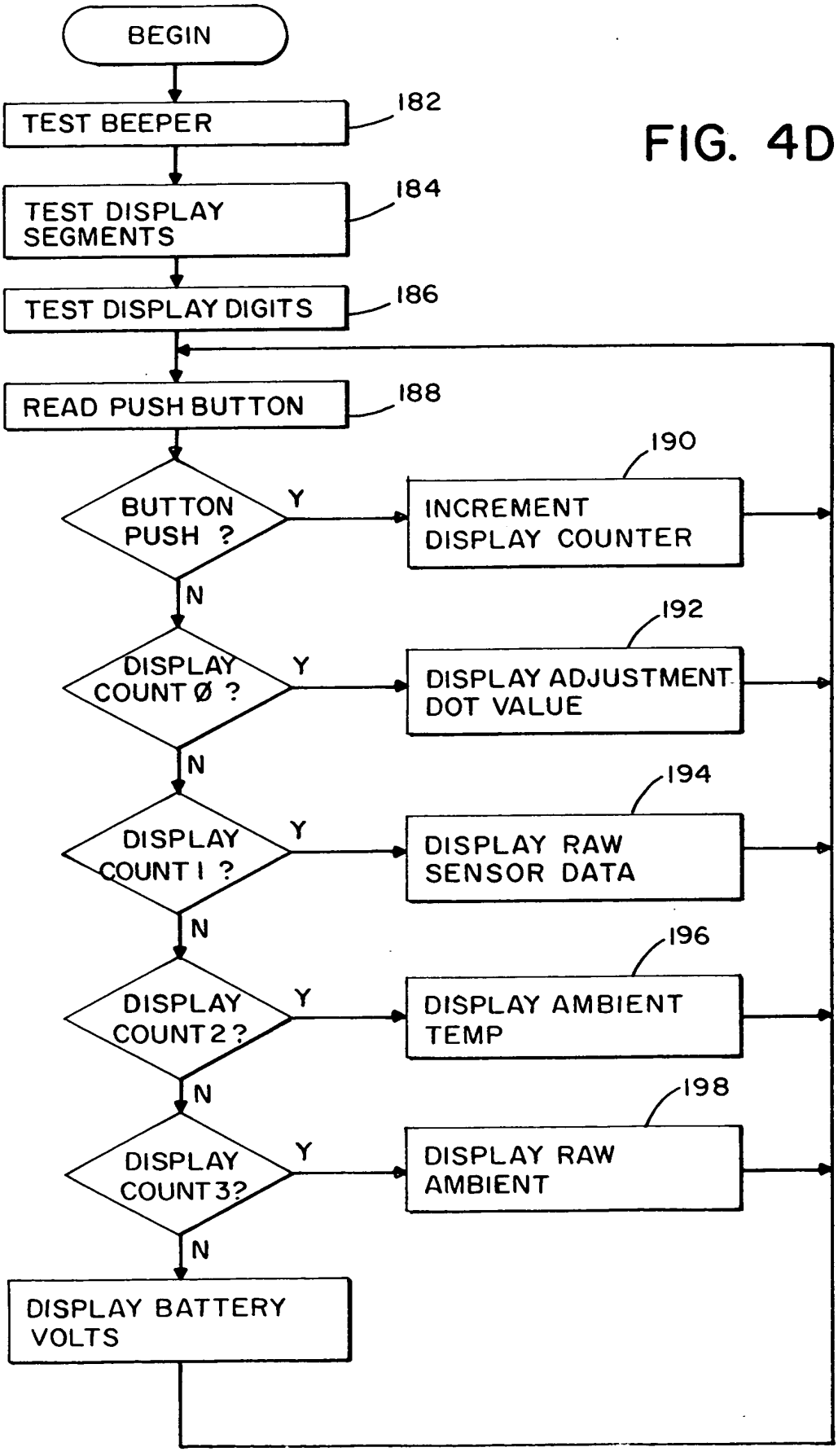

BEGIN
TEST BEEPER
182
TEST DISPLAY SEGMENTS
184
TEST DISPLAY DIGITS
186
READ PUSH BUTTON
188
BUTTON PUSH ?
Y
190
INCREMENT DISPLAY COUNTER
N
DISPLAY COUNT Ø ?
Y
192
DISPLAY ADJUSTMENT DOT VALUE
N
DISPLAY COUNT 1 ?
Y
194
DISPLAY RAW SENSOR DATA
N
DISPLAY COUNT 2 ?
Y
196
DISPLAY AMBIENT TEMP
N
DISPLAY COUNT 3?
Y
198
DISPLAY RAW AMBIENT
N
DISPLAY BATTERY VOLTS

FIG. 4D